

Grazing Bites

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I took advantage of the unseasonably good weather at the end of January and worked on some fence rows. It doesn't seem like it matters what method of brush control I use, there is always something to cut, pull, or glean out of the fence. Mild winter weather is also my preferred time to build fence. Fence posts are easily driven into the ground and I am a little less concerned about driving over good forage and causing damage. It is best for the ground to be either thawed and drained (broke through) or frozen when using equipment to reduce possible damage.

If you have any frost-seeding of legumes to do, now is the prime time to get it done. It is important to try and get some seed to soil contact if possible when broadcast seeding. This can be accomplished by carefully grazing the forages down more than normal prior to seeding, using a toothed harrow to help scratch the seed in, or utilizing your existing livestock to help trod it in. All three methods can produce positive results.

Clovers are probably the easiest legumes to frost-seed. The seed is small and slick and easily moves down through the residue/residual to the ground. If you already have some clover and are just enhancing what you have, then utilize improved varieties for the best results. If you don't have any clover presently, then you should inoculate the seed with the appropriate rhizobium. The seed may germinate and thrive without it, but it will do so much better if it is present, especially if one of the goals for planting the legume is as a nitrogen source for the grass component of the stand.

It is best to get a seeding recommendation and rates for the legumes from your local soil and water conservation district office or extension office. Some legumes do better with particular types of livestock over others, some do better depending on the type of soil and drainage, and there are some differences depending on management. Red clover for example is better suited for hay than most white clovers because it dries better. There is also a huge difference in seed size which highly influences the amount of seed that is needed. Most white clovers have over three times more seed per pound than red clovers. It is easy to seed too much white clover and seed size is part of the reason. White clovers (Dutch whites, Ladinos, Alsike, etc.), can cause bloat issues when they dominate a stand.

You can buy clover seed coated too. Coated seed has a coating of clay material surrounding the seed which actually helps you be able to sow very small seed more accurately. It does change the pounds of bulk seed you are planting. Most coating adds about 33-34% inert ingredients to the bag of seed. So if you are wanting to plant six pounds of red clover, you are actually going to have to increase the amount of bulk seed you plant per acre to about nine pounds per acre to get your planned six pound rate. Most legumes have good germination and purity rates normally, but that does vary some. The inert ingredient percentage needs to be accounted for with the purity. For example a lot with 98% germination and 97% purity with 33% inert (the coating) $.98 \times .97 \times (1-33\% \text{ or } .67) = .63$ (or 63%) of the lot is live seed. So if the desired pure live seed rate is six pounds per acre, $6 / .63 = 9.5$ pounds per acre. When it comes to something like a Ladino clover and you are wanting to seed only about a pound per acre in some cases, coated seed makes it a lot easier to do.

Coated seed can also be the carrier of the inoculant if needed and occasionally has other things included. If you really need the inoculant, the seed needs to be used the same year it was coated. Quite a bit of legume seed has a calcium carbonate coating which can create a slightly better environment pH wise for the sprouting seed, but for the plant to thrive and do well, low pH soils should be limed at least six months in advance to create the environment best suited for the legume being present. Most clover a soil pH of 6.2 to 6.8 with preference on the upper end of that range.

There are lots of reasons to add legumes to your pastures and hay fields and I won't go into a lot of detail but just mention a few. Diversity is always good and rarely do you find a monoculture in nature. The synergy and

relationship between grasses and legumes is always positive and they provide benefits to each other. The mix of legumes and grasses helps to boost yield from nitrogen produced by the legume and the combination provides more grazing than either one by itself. The clover fills in the gaps or voids in a grass stand. Some legumes can persist under drier conditions than cool-season grasses during the summer. The legumes can provide a significantly high amount of the nitrogen needed for the grass in the stand and boosting its yield and thus quality. Legumes can also be a good pollinator plant for bees. Legumes generally are higher in quality than most grasses at the same stage (crude protein, nutrients, and digestibility).



I can't over emphasize that clover can be seeded too thick and get too dense, too much clover can mean serious bloat issues!

Legumes are good to dilute stands of endophyte-infected tall fescue and some new research indicates that a tannin in red clover might actually help offset the toxin in endophyte tall fescue. I'll be following up on this.

Earlier I included residue/residual in a statement and there is a reason I did that. Just recently, Jim Gerrish noted in a grazing social medium that we need to be more careful of the use of these two words in regards to the forage left in the pasture after a grazing episode. Quoting Gerrish, *"Is it residual or is it residue? A lot of people in grazing circles seem to use these terms interchangeably, but in grazing science they mean two very different things. Residual is the living plant material left behind after a grazing event. For clarity we often say 'post-grazing residual'. Residue is dead plant material left on the soil surface. It is synonymous with litter or duff.*

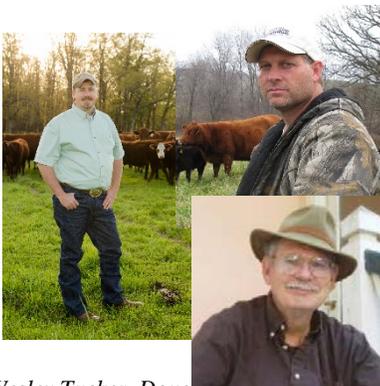
Leaving the appropriate residual largely determines the recovery rate of the pasture. The more green leaf residual, the faster plants regrow.

Leaving the appropriate residue is an essential component for moderating soil temperature and building an effective water cycle. Both residual and residue are important management considerations and affect almost all soil-plant-animal relationships. Let's try to make sure we use the right terms in our conversations so we know what one another are trying to express!"

I totally agree and thought this statement was excellent! I try to stick to these same definitions and if I have ever deviated from this, I apologize. So, with that said, how is the residue and residual in your pastures today?

Keep on grazing!

Reminders & Opportunities



Wesley Tucker, Doug Peterson, and Allan Nation, editor of *The Stockman Grass Farmer Magazine*, will be speakers at the SIGC! This is one conference you will not want to miss!

Southern Indiana Grazing Conference – March 2, 2016, Crane, IN – Speakers include Allan Nation (Stockman Grass Farmer Magazine), Wesley Tucker, and Doug Peterson. For more information contact the Daviess County Soil and Water Conservation office at 812-254-4780, Ext 3, email Toni Allison dc.swcd@daviess.org, or visit <http://www.daviesscoswcd.org/index.php/sigc> or <https://www.facebook.com/SouthernIndianaGrazingConference>

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